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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,577	10/24/2003	Yih Chang	CHAN3224/EM	6961

23364 7590 10/10/2006

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EXAMINER
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QUARTERMAN, KEVIN J

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/691,577

Applicant(s)

CHANG ET AL.

Examiner

Kevin Quarterman

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-11 and 16-23 is/are rejected.
- 7) ☒ Claim(s) 2,3 and 12-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION**

***Response to Amendment***

1. The declaration under 37 CFR 1.132 filed 18 July 2006 is sufficient to overcome the rejection of claims 1-23 based upon Chang (US 2004/0057864).

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Nakamura (US 7,101,440).
4. Regarding independent claim 1, Nakamura discloses a silver alloy used in an electroluminescent apparatus comprising 80 to 99.8 mol% of silver; 0.1 to 10 mol% of copper; and 0.1 to 10 mol% of at least one transition metal selected from the group consisting of palladium, magnesium, gold, platinum, and the combinations thereof, wherein the total mole percentage of the silver alloy is 100 mol% (col. 23, ln. 16-18).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 4-7, 10-11, and 17-23 are rejected under 35 U.S.C. 103(a) as being obvious over Sotoyama (US 6,805,977) in view of Nakamura (US 7,101,440).

8. Regarding independent claim 4, Figure 4 of Sotoyama shows an organic electroluminescent panel comprising a substrate (12); a plurality of first electrodes (14); a plurality of second electrodes (22); a plurality of conducting lines (38); and a plurality of organic electroluminescent media (24), wherein the first electrodes are arranged in parallel on the substrate; the organic electroluminescent media are disposed on the first electrodes; the second electrodes are disposed on the organic electroluminescent media; the conducting lines are connected to the first electrodes or the second electrodes.

9. Sotoyama teaches the limitations of independent claim 4 discussed earlier but fails to exemplify the conducting lines containing a silver alloy.

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10. Nakamura teaches that it is known in the art to provide a silver alloy used in an electroluminescent apparatus to serve as thin film electrodes or conductive wires (pg. 1, ¶ [0002]) comprising 80 to 99.8 mol% of silver; 0.1 to 10 mol% of copper; and 0.1 to 10 mol% of at least one transition metal selected from the group consisting of palladium, magnesium, gold, platinum, and the combinations thereof, wherein the total mole percentage of the silver alloy is 100 mol% (col. 23, ln. 16-18).

11. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the organic electroluminescent panel of Sotoyama with conducting line containing the silver alloy taught by Nakamura for improving the resistance, conduction, and adhesion characteristics of the device.

12. Regarding claim 5, Figure 4 of Sotoyama shows a plurality of auxiliary electrodes (40) that may contain the silver alloy of Nakamura.

13. Regarding claim 6, Figure 4 of Sotoyama shows the auxiliary electrodes arranged in parallel on the first electrodes or on the substrate.

14. Regarding claim 7, Nakamura discloses a silver alloy comprising 80 to 99.8 mol% of silver; 0.1 to 10 mol% of copper; and 0.1 to 10 mol% of at least one transition metal selected from the group consisting of palladium, magnesium, gold, platinum, and the combinations thereof, wherein the total mole percentage of the silver alloy is 100 mol% (col. 23, ln. 16-18).

15. Regarding claim 10, Sotoyama discloses the organic electroluminescent panel further comprising a pixel-defining layer (protective layer) formed on the first electrodes (col. 21, ln. 23-26).

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16. Regarding claim 11, Sotoyama discloses the pixel-defining layer being made of polyimide (col. 21, ln. 39).

17. Regarding claim 17, Figure 2 of Sotoyama shows the projection of the second electrodes on the substrate intersecting perpendicularly with that of the first electrodes on the substrate.

18. Regarding claim 18, Sotoyama discloses the substrate being selected from the group consisting of the glass substrates, the plastic substrates, and the flexible substrates (col. 17, ln. 54-56).

19. Regarding claim 19, Sotoyama discloses the plastic substrates and the flexible substrates made of the materials selected from the group consisting of polycarbonate, polyester, cyclic olefin copolymer, metallocene-based cyclic olefin copolymer, thin glass, and combinations thereof (col. 17, ln. 57-65).

20. Regarding claim 20, Figure 4 of Sotoyama shows the organic electroluminescent medium constructed of single layer or multilayer structure.

21. Regarding claim 21, Sotoyama discloses the organic electroluminescent medium constructed of the multilayer structure including a hole injecting layer, a hole transporting layer, a light-emitting layer, an electron transporting layer, and an electron injecting layer (col. 15, ln. 40-47).

22. Regarding independent claim 22, Figure 4 of Sotoyama shows an organic electroluminescent panel comprising a substrate (12); a plurality of first electrodes (14); a plurality of second electrodes (22); a plurality of conducting lines (38); a plurality of auxiliary electrodes (40); and a plurality of organic electroluminescent media (24),

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wherein the first electrodes are arranged in parallel on the substrate; the organic electroluminescent media are disposed on the first electrodes; the second electrodes are disposed on the organic electroluminescent media; the conducting lines are connected to the first electrodes or the second electrodes.

23. Regarding claim 23, Figure 4 of Sotoyama shows the auxiliary electrodes arranged in parallel on the first electrodes or on the substrate.

24. Claims 8-9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sotoyama (US 6,805,977) and Nakamura (US 7,101,440) as applied to claim 4 above, and further in view of Sakemura (US 6,404,124).

25. Sotoyama and Nakamura teach the limitations of independent claim 4 discussed above but fail to exemplify a plurality of isolating walls.

26. Figure 13 of Sakemura teaches that it is known in the art to provide display panels with isolating walls (RR) for separating the front and rear substrates.

27. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the isolating walls of Sakemura in the device of Sotoyama for providing separation between substrates.

28. Regarding claim 9, Figure 13 of Sakemura shows the isolating walls protruding from the substrate and having an overhanging portion projecting in a direction to the substrate.

29. Regarding claim 16, Figure 13 of Sakemura shows the isolating walls parallel with each other.

***Response to Arguments***

30. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

***Allowable Subject Matter***

31. Claims 2-3 and 12-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

32. The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 2, the prior art of record neither shows or suggests a silver alloy comprising, in addition to other limitations of the claim, at least one adhesion improver, wherein the adhesion improver is titanium, aluminum, nickel, cobalt, or chromium. Due to its dependency upon claim 2, claim 3 is also allowable. Claims 12-15 are also allowable for the same reasons discussed above for claim.



**Contact Information**

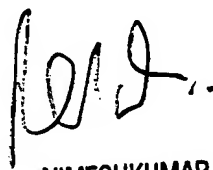
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Quarterman whose telephone number is (571) 272-2461. The examiner can normally be reached on M-TH (7-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin Quarterman  
Examiner  
Art Unit 2879

kq   
2 October 2006

  
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